



PATENT

Atty. Docket No. AMAT/4714.P1/TCG/WCVD/BG

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Korj. et al.

Serial No.: 09/678,266

Confirmation No.: 4642

Filed: October 3, 2000

For: METHOD AND APPARATUS FOR
DEPOSITING REFRACTORY METAL
LAYERS EMPLOYING SEQUENTIAL
DEPOSITION TECHNIQUES TO
FORM NUCLEATION LAYER

~~~~~

Group Art Unit: 2827

Examiner: Zarneke, David

**RECEIVED**

NOV 26 2004

**OFFICE OF PETITIONS**

**MAIL STOP PETITION**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, VA 22313-1450**

Dear Sir:

## CERTIFICATE OF MAILING

37 CFR 1.8

I hereby certify that this correspondence is being deposited on November 18, 2004 with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date 11/18/2004

Michelle Perret  
Signature

# PETITION UNDER 37 C.F.R. § 1.181

Applicant petitions the Director regarding the handling of the Petition to Withdraw Abandonment under 37 CFR § 1.181 filed February 4, 2003. Applicant filed the petition in response to a Notice of Abandonment dated January 20, 2003. Applicant noted in the petition that the Notice of Allowance was not received by Applicant until January 24, 2003, which was after the issue fee due date of November 13, 2002. The Notice of Allowance was received in an envelope postmarked January 13, 2003. As the Notice of Allowance did not list the correct correspondence address and had a stamp stating "Received SEP-4 2002 Technology Center 2800," Applicant believes that the Notice of Allowance was mailed to an incorrect address, returned to the Patent Office on September 4, 2002, and then re-mailed on January 13, 2003.

In August 2003, Special Program Examiner Hien Phan indicated in a telephone conference that he was handling the Petition to Withdraw Abandonment. However,

DTSV

EXTERNAL MAIL

|              |                                                                             |
|--------------|-----------------------------------------------------------------------------|
| Date         | Date sent                                                                   |
| From         | Senders name,<br>Senders location (tech center or section),<br>Phone Number |
| To           | The intended location as specific as possible                               |
| Special Note | Special information that the recipient or deliver should know.              |

Date: 12.07.04

From: Petition 4700

To: 2800

Special Note:

---

---

---

---

Applicant has not received a notice that the Petition to Withdraw Abandonment has been granted or denied, and the PAIR system does not indicate that the Petition to Withdraw Abandonment was received and entered.

Attached are copies of the Petition to Withdraw Abandonment under 37 CFR § 1.181 filed February 4, 2003, and the papers filed therewith. Also attached are copies of the facsimile cover sheet of the courtesy copy of the Petition to Withdraw Abandonment under 37 CFR § 1.181 filed February 4, 2003, and the papers filed therewith that were sent to Examiner Zarneke on November 3, 2003.

Applicant respectfully requests consideration of the Petition to Withdraw Abandonment under 37 CFR § 1.181 filed February 4, 2003. Applicant respectfully requests that the abandonment entered on January 20, 2003, be withdrawn.

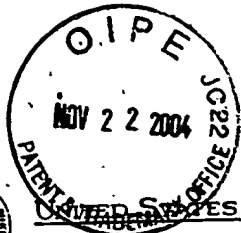
Applicant does not feel that a fee is necessary at this time, but if the sum of \$130.00 is due under 37 C.F.R. § 1.17 (h), the Commissioner is hereby authorized to charge this fee, and any other fee necessary to make this submission timely and acceptable to the Deposit Account No. 20-0782/AMAT/4714.P1/KMT.

Respectfully submitted,



---

Keith M. Tackett  
Registration No. 32,008  
MOSER, PATTERSON & SHERIDAN, L.L.P.  
3040 Post Oak Blvd., Suite 1500  
Houston, TX 77056  
Telephone: (713) 623-4844  
Facsimile: (713) 623-4846  
Attorney for Assignee



# COPY

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

2003 JAN 22 PM 1:00

\$IF 11-13-02

## NOTICE OF ALLOWANCE AND FEE(S) DUE

32588 7590 08/13/2002  
APPLIED MATERIALS, INC.  
2881 SCOTT BLVD. M/S 2061  
SANTA CLARA, CA 95050

RECEIVED  
NOV 26 2004

OFFICE OF PETITIONS

COMPUTER ENTERI  
JAN 24 2003

|                   |
|-------------------|
| EXAMINER          |
| ZARNEKE, DAVID A. |
| ART UNIT          |
| CLASS-SUBCLASS    |

2827

438-685000

DATE MAILED: 08/13/2002

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/678,266      | 10/03/2000  | Ming Xi              | 004714 PO1          | 4642             |

TITLE OF INVENTION: METHOD AND APPARATUS FOR DEPOSITING REFRACTORY METAL LAYERS EMPLOYING SEQUENTIAL DEPOSITION TECHNIQUES TO FORM A NUCLEATION LAYER

### Match and Return

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE | PUBLICATION FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|-----------|-----------------|------------------|------------|
| nonprovisional | NO           | \$1280    | \$0             | \$1280           | 11/13/2002 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above. If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

NOV 22 2004

COPY

PCMaster v3.03.02 - Applied Materials - (Patent)

File Edit Research Utilities Tools Help



|               |                      |                 |                                |
|---------------|----------------------|-----------------|--------------------------------|
| Docket Number | 004714               | Attorney        | Walter Benjamin Glenn          |
| Country       | United States        | Law Firm        | Moser, Patterson & Sheridan, L |
| Case Type     | REGULAR CASE TYPE    | Client/Division | Cu, PVD and Integrated System  |
| Relation Type | CONTINUATION-IN-PART | Current Owner   | Applied Materials, Inc.        |
| Filing Type   | NATIONAL CASE        | Previous Owner  |                                |
| Filing Number | 01                   | AMJ             |                                |

METHOD AND APPARATUS FOR DEPOSITING REFRACTORY METAL LAYERS EMPLOYING

|             |              |              |             |             |          |           |           |           |
|-------------|--------------|--------------|-------------|-------------|----------|-----------|-----------|-----------|
| Licenses    | Other No.    | SAP/Dkt No.  | Related Id. | File        | Text     | SAP/Doc   | Product   | Applicant |
| Filing Data | Rel Pty Info | Asgn/Archive | Actions     | Description | Expenses | Ext Files | Inventors | Keywords  |

| Action              | Action Due Date | Taken Date | Deadline Date | Completed Date | Action Notes |
|---------------------|-----------------|------------|---------------|----------------|--------------|
| NOTICE OF MISSING   | 02/06/2001      |            |               | 02/06/2001     | signa        |
| INVENTOR FILING     | 02/21/2001      |            |               | 03/08/2002     |              |
| EPC SEARCH/POSS IDS | 01/15/2002      |            |               | 10/31/2001     |              |
| INVENTOR FILING     | 02/21/2002      |            |               | 03/08/2002     | FOR          |
| RESTRICTION         | 05/23/2002      | 05/03/2002 |               | 05/06/2002     | To           |
| ISSUE FEE DUE       | 11/13/2002      | 01/24/2003 |               |                | 1-24         |
| RESPONSE TO         | 02/20/2003      |            |               |                |              |
| DECISION GRANTING   |                 |            |               | 06/26/2002     | W/D          |
| REVOCAION OF        |                 |            |               | 07/10/2002     | PWR          |
| SUPPLEMENTAL IDS    |                 |            |               | 05/24/2002     |              |
| FILE ASSIGNMENT     |                 |            |               | 10/15/2001     | ASG          |
| SUPPLEMENTAL IDS    |                 |            |               | 11/08/2001     |              |

Created: 10/09/2000 Updated: 01/29/2003 2:16 PM By: DJB

Start | 29 | GaleB1's Buddy List Window | Gale Bailey | Inbox | Lotus | PCMaster v3.03.02 | 004714 | 004714 | 004714 | 004714

NOV 22 2004

COPY

PCMaster v3.03.02 - Applied Materials - [Patent]

File Edit Record Utilities Tools Help

Docket Number: 004714 Attorney: Walter Benjamin Glenn

1-24-2003-This just in from Patent Office - sent to Todd, cc'd ben to contact PTO regarding late mailing of PTO docs to AMAT/SRG

OK Cancel

| Date       | Description | Date       | Description            |
|------------|-------------|------------|------------------------|
| 02/06/2001 |             | 02/06/2001 | signatures to MW on    |
| 02/21/2001 |             | 03/08/2002 |                        |
| 01/15/2002 |             | 10/31/2001 |                        |
| 02/21/2002 |             | 03/08/2002 | FOR LU & LAI./DB       |
| 05/23/2002 | 05/03/2002  | 05/06/2002 | To TP/SRG              |
| 11/13/2002 | 01/24/2003  |            | 1-24-2003-This just in |
| 02/20/2003 |             |            |                        |
|            |             | 06/26/2002 | W/D BROOKS AS          |
|            |             | 07/10/2002 | PWR FILED 5/2/2002     |
|            |             | 05/24/2002 |                        |
|            |             | 10/15/2001 | ASG DUE TO ADD LU.     |
|            |             | 11/09/2001 |                        |

Created: 10/09/2000 Updated: 01/29/2003 2:16 PM By: DUBA

Start: A:Gale Bailey:Body:Inbox: PCMaster v3.03 Document: Microsoft Word 2003

RECEIVED  
NOV 26 2004  
OFFICE OF PETITIONS

**COPY**

Atty. Docket No. AMAT/4714.P1/TCG/WCVD/BG  
PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Kori, et al.

Serial No.: 09/678,266

Confirmation No.: 4642

Filed: October 3, 2000

For: METHOD AND APPARATUS FOR  
DEPOSITING REFRACTORY METAL  
LAYERS EMPLOYING SEQUENTIAL  
DEPOSITION TECHNIQUES TO  
FORM NUCLEATION LAYER

Group Art Unit: 2827

Examiner: Zameke, David

**RECEIVED**  
NOV 26 2004  
OFFICE OF PETITIONS

Box DAC  
Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

| CERTIFICATE OF MAILING                                                                                                                                                                                                                            |                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 37 CFR 1.8                                                                                                                                                                                                                                        |                                 |
| I hereby certify that this correspondence being deposited on<br><u>02/04/03</u> , 2003, via the United States Postal Service<br>as First Class Mail in an envelope addressed to:<br>Commissioner for Patents, Box DAC, Washington, D.C.<br>20231. |                                 |
| <u>02/04/03</u><br>Date                                                                                                                                                                                                                           | <u>[Signature]</u><br>Signature |

**STATEMENT BY GAILE P. BAILEY**

I, Gaile P. Bailey, am providing the following statement under 37 CFR 1.181:

I am the Docketing Administrator for Applied Materials Inc., of Santa Clara, California. I am responsible for receiving and docketing every official communication from the United States Patent and Trademark Office. As of today, I have not received a Notice of Allowance for the above-identified application other than the Notice of Allowance dated August 13, 2002 that we received on January 24, 2003 in an envelope postmarked January 13, 2003. A copy of the docket record (Exhibit A) is enclosed herewith to indicate absence of timely receipt of the Notice of Allowance.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may

02/03/03 11:41 FAX 408 563 6492

APPLIED MATERIALS

→ PATTERSON

140003

Jan-31-03 11:30am From-Moser, Patten & Sheridan L.L.P.

+713 623 4846

T-888


P.003/003

F-057

PATENT

Att. Docket No. AMAT/4714.P1/TCG/WCVD/BG

Jeopardize the validity of the application, any patent issuing thereon, or any patent to which the verified statement is directed.



Gaile P. Bailey  
Docketing Administrator  
Applied Materials, Inc.,  
P.O. Box. 458  
Santa Clara, California 95052

Date Signed: 2-3-2003

T:\Clients\APPM4000-4999\4714.P1\PTO\Pet.Statement.Bailey.doc



8408 553 6821

AMAT IP

01/31/03 09:18 P.002/003

Jan-31-03 11:31am

From-Moser, Patte Sheridan I.I.P.

T-889 P.002/003 F-058

**COPY**
 PATENT  
 Atty. Docket No. AMAT/4714.P1/TCG/WCVD/BG

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

 In re Application of:  
 Kuri, et al.

Serial No.: 09/678,266

Confirmation No.: 4642

Filed: October 3, 2000

 For: METHOD AND APPARATUS FOR  
 DEPOSITING REFRACTORY METAL  
 LAYERS EMPLOYING SEQUENTIAL  
 DEPOSITION TECHNIQUES TO  
 FORM NUCLEATION LAYER

 Box DAC  
 Commissioner for Patents  
 Washington, D.C. 20231

Dear Sir:

Group Art Unit: 2827

Examiner: Zarneke, David

**RECEIVED**  
 NOV 26 2004  
 OFFICE OF PETITIONS

| CERTIFICATE OF MAILING                                          |                                               |
|-----------------------------------------------------------------|-----------------------------------------------|
| 37 CFR 1.8                                                      |                                               |
| I hereby certify that this correspondence is being deposited on |                                               |
| 02/04                                                           | 2003 with the United States Postal Service as |
| First Class Mail in an envelope addressed to: Commissioner      |                                               |
| for Patents, Box DAC, Washington, D.C. 20231.                   |                                               |
| 02/04/03                                                        | <i>[Signature]</i>                            |
| Date                                                            | Signature                                     |

**STATEMENT BY SHERI GRIFFIN**

I, Sheri Griffin, am providing the following statement under 37 CFR 1.181:

I am a Patent Administrator for Applied Materials Inc., of Santa Clara, California. My responsibility includes managing the documentations in connection with the prosecution of the above-identified application. I have searched the file jacket for the above-identified application and as of today, I have not found a Notice of Allowance for the referenced case other than the Notice of Allowance dated August 13, 2002 that was received on January 24, 2003 in an envelope postmarked January 13, 2003.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may

0408 563 6821

AMAT IP

01/31/03 09:19 P.003/003

Jnn-31-83 11:31am


From-Moser, Pat & Sheridan L.L.P.

T-889 P.003/003 F-058

PATENT

Atty. Docket No. AMA1/4714.P1/ICG/WGVD/BG

jeopardize the validity of the application, any patent issuing thereon, or any patent to which the verified statement is directed.

  
\_\_\_\_\_  
Sheri Griffin  
Patent Administrator  
Applied Materials, Inc.,  
P.O. Box 458  
Santa Clara, California 95052

Date Signed: 1-31-2003

T:\Client\APP\MM4000-4888\4714.P1\PTO\Pet.Statement.Griffin.doc

NOV 26 2004

**OFFICE OF PETITIONS**

**SERIAL NO.**

**APPLICANT**

**INVENTOR:**

The Patent & Trademark Office acknowledges and has stamped hereon the date of receipt of the items checked below which were mailed Feb. 4, 1964

- ☐ AFFIDAVIT  
☐ AMENDMENT  
☐ APPLICATION PAPER - CATH/DECLARATION  
☐ TOTAL CTS. \_\_\_\_\_ IN \_\_\_\_\_ SHEETS(S) OF DRAWING(S) FORMAL LINE  
☐ ASSIGNMENT-RECORDAL FEE \$ \_\_\_\_\_  
☐ BRIEF  
☐ APPEAL NOTICE  
☐ DECLARATION  
☐ ISSUE FEE - BASE/BALANCE  
☐ LETTER - CHARGE DEPOSIT ACCOUNT  
☐ LETTER  
☐ TRADEMARK/SERVICE MARK APPLICATION  
☒ PETITION TO REVOKE  
☐ PRELIMINARY AMENDMENT  
☐ INFORMATION DISCLOSURE STATEMENT  
☐ REQUEST FOR EXTENSION OF TIME  
☐ RESPONSE TO \_\_\_\_\_  
☐ SPECIMENS  
☐ SMALL ENTITY  
☐ CHECK # \_\_\_\_\_ IN THE AMOUNT OF \$ \_\_\_\_\_  
☐ ATTORNEY'S FEE  
☐ ATTORNEY'S COSTS

**EXPRESS MAIL #**

MAIL LOG#

12/90

25

IN THE AMOUNT OF \$



Information Report - Memory Send

Page : 001  
Date & Time: Nov-03-03 11:37am  
Line 1 : +713 623 4846  
Line 2 :  
E-mail :  
Machine ID : Moser, Patterson & Sheridan L.L.P.

RECEIVED  
NOV 26 2004  
OFFICE OF PETITIONS

Job number : 280  
Date : Nov-03 11:32am  
To : 17037463876  
Number of pages : 011  
Start time : Nov-03 11:32am  
End time : Nov-03 11:37am  
Pages sent : 011  
Status : OK

Job number : 280

\*\*\* SEND SUCCESSFUL \*\*\*

**MOSER  
PATTERSON &  
SHERIDAN, LLP**  
ATTORNEYS AT LAW

3040 Post Oak Blvd, Suite 1500  
Houston, TX 77056-6582  
TEL 713.623.4844  
FAX 713.623.4846  
WWW.MPSI.PCOM

**FACSIMILE COVER SHEET**

**DATE:** November 3, 2003  
**FILE NO:** AMAT/4714.P1/TCG/WCVD/RKK  
**TO:** Examiner: David Zarneke  
**FAX NO:** 703-746-3876  
**PHONE NO:** 703-305-3926  
**COMPANY:** USPTO  
**FROM:** Keith M. Tackett  
**PAGE(S) with cover:** 11  
**ORIGINAL TO FOLLOW?** ☐ YES ☒ NO

\*\*\*COURTESY COPY\*\*\*

**PETITION TO WITHDRAW ABANDONMENT**

**TITLE:** Method and Apparatus for Depositing Refractory Metal Layers Employing Sequential Deposition Techniques to Form Nucleation Layer  
**U.S. SERIAL NO.:** 09/678,266  
**FILING DATE:** October 3, 2000  
**INVENTOR:** Kori, et al.  
**EXAMINER:** David Zarneke  
**GROUP ART UNIT:** 2827  
**CONFIRMATION NO.:** 4642

**CONFIDENTIALITY NOTE**

The document accompanying this facsimile transmission contains information from the law firm of Moser, Patterson & Sheridan, L.L.P., which is confidential or privileged. The information is intended to be for the use of the individual or entity named on this transmission sheet. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the contents of this faxed information is prohibited. If you have received this facsimile in error, please notify us by telephone immediately so that we can arrange for the retrieval of the original documents at no cost to you.

235920\_1

SA w/ Examiner  
Fax Rec'd + Confirmed - 11/3/2003

**MOSER  
PATTERSON &  
SHERIDAN, LLP**

ATTORNEYS AT LAW



3040 Post Oak Blvd, Suite 1500  
Houston, TX 77056-6582  
TEL 713.623.4844  
FAX 713.623.4846  
WWW.MPSI1.P.COM

## FACSIMILE COVER SHEET

**RECEIVED**

**NOV 26 2004**

**OFFICE OF PETITIONS**

**DATE:** November 3, 2003  
**FILE NO:** AMAT/4714.P1/TCG/WCVD/RKK  
**TO:** Examiner: David Zarneke  
**FAX NO:** 703-746-3876  
**PHONE NO:** 703-305-3926  
**COMPANY:** USPTO  
**FROM:** Keith M. Tackett  
**PAGE(S) with cover:** 11  
**ORIGINAL TO FOLLOW?** ☐ YES ☒ NO

**\*\*\*COURTESY COPY\*\*\***

### PETITION TO WITHDRAW ABANDONMENT

**TITLE:** Method and Apparatus for Depositing Refractory Metal Layers  
Employing Sequential Deposition Techniques to Form  
Nucleation Layer  
**U.S. SERIAL NO.:** 09/678,266  
**FILING DATE:** October 3, 2000  
**INVENTOR:** Kori, et al.  
**EXAMINER:** David Zarneke  
**GROUP ART UNIT:** 2827  
**CONFIRMATION NO.:** 4642

#### CONFIDENTIALITY NOTE

The document accompanying this facsimile transmission contains information from the law firm of Moser, Patterson & Sheridan, L.L.P. which is confidential or privileged. The information is intended to be for the use of the individual or entity named on this transmission sheet. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the contents of this faxed information is prohibited. If you have received this facsimile in error, please notify us by telephone immediately so that we can arrange for the retrieval of the original documents at no cost to you.

233920\_1